Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Connect America Fund	)	WC Docket No. 10-90
	)	
A National Broadband Plan for Our Future	)	GN Docket No. 09-51
	)	
Establishing Just and Reasonable Rates for Local	)	
Exchange Carriers	)	WC Docket No. 07-135
	)	
High-Cost Universal Service Support	)	WC Docket No. 05-337
	)	
Developing an Unified Intercarrier Compensation	)	
Regime	)	CC Docket No. 01-92
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
Lifeline and Link-Up	)	WC Docket No. 03-109

REPLY COMMENTS OF XO COMMUNICATIONS, LLC

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May 23, 2011

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REPLY COMMENTS OF XO COMMUNICATIONS, LLC

XO Communications LLC ("XO") hereby files its reply to the initial comments submitted in the above-referenced dockets on April 18, 2011 regarding comprehensive reform of the intercarrier compensation and universal service regulatory frameworks.

Introduction and Summary

The time is now for a complete overhaul of the current intercarrier compensation and universal service systems. Both are already broken, and will fall steadily further into disrepair unless reformed. Indeed, comprehensive overhaul of both intercarrier compensation and universal service are necessary predicates to the evolution of ubiquitous broadband networks and services.

First, with respect to intercarrier compensation, the Commission should act quickly to adopt policies that encourage carriers to deploy all-Internet Protocol ("IP") networks. The availability of IP interconnection has failed to keep pace with the level of industry-wide investment in IP networks. Many ILECs in particular have been reluctant to interconnect on an IP basis, and require carriers to convert IP-originated traffic to time-division multiplexing ("TDM") before delivering it for termination. This circumstance deprives both carriers and consumers of the full benefits of IP technology. The solution is for the FCC to clarify that IP interconnection is subject to the obligations created by Sections 251 and 252 of the Communications Act, and adopt rules that facilitate the transition to IP interconnection for *all* carriers to exchange *all* voice traffic, regardless of the network on which it originated or technology used to serve the parties at either of the call..

Specifically, the Commission should require that, within the next 2 years, all terminating carriers are required to accept traffic in IP format without requiring any carrier delivering the traffic to convert or pay for converting to TDM. Within the next 5 years, terminating carriers should not be required to provide TDM-based interconnection, and should be permitted to charge a reasonable fee for converting traffic received in TDM to IP format. The Commission must reject the suggestion that IP networks be left devoid of FCC regulation and subject only to market forces. The refusal of ILECs to interconnect with competitive carriers on an all-IP basis so far is all the evidence that is required to show that market forces alone will not usher in reasonable and nondiscriminatory IP-based interconnection.

In addition, the Commission should adopt compensation rules which are conducive to IP network interconnection and the deployment of broadband services. The Commission should quickly establish a low, but positive, unified rate that applies to all carriers and all types and jurisdictions of traffic terminated on a TDM basis, by creating a short transition for the reduction of intrastate rates to interstate rates and then for access rates to the level of reciprocal compensation rates. Furthermore, at the outset and during the transition, VoIP traffic that is terminated on a TDM-basis and all traffic exchanged on an IP-basis should be subject to lower compensation rates to encourage such arrangements and IP deployment. Specifically, VoIP traffic should be immediately subject to rates at the level of reciprocal compensation, not access charges. Traffic exchanged via IP-based interconnection should be terminated on a bill-and-keep basis when traffic is roughly in balance. When traffic is out-of-balance, however, terminating carriers should be permitted to assess charges to recover the additional cost of termination and deter arbitrage stemming from overuse of the terminating carrier's network.

Second, the Commission must act boldly to restrain a high cost universal service program that is swiftly spinning out of control. While XO agrees that high cost funding should be redirected to the support of broadband services, the Commission must act simultaneously to control the cost of funding the program. The overall expense of high cost universal service support must be capped at current levels, and phased down over time. High cost support should be paid to a single provider per geographic area that is selected on the basis of competitive bidding. And, critically, the FCC must reform the rules governing contributions made to USF at the same time that the distribution-side system is revamped.

I. THE COMMISSION SHOULD IMMEDIATELY ADOPT POLICIES TO GOVERN IP-BASED INTERCONNECTION FOR ALL VOICE TRAFFIC, REGARDLESS OF THE TECHNOLOGY USED BY EACH CARRIER TO SERVE ITS END USERS

Contrary to suggestions of some commenters,[1] the Commission need not dwell on perfecting the regime for TDM interconnection and intercarrier compensation. While reform of TDM compensation is critically important in the short-term, as discussed below, there is widespread support for adopting a moderate transition to a unified low rate for TDM compensation so the Commission need not exhaust its efforts on refining a ten-year transition plan. Instead, the Commission should quickly implement TDM reforms and shift its focus to developing forward-looking policies that encourage future deployment of all-IP networks. Strong IP interconnection and traffic exchange policies do just that, creating *incentives*, rather than mandates, for IP deployment.

A. The Commission Should Not Delay in Adopting Strong IP Interconnection Policies That Will Create Incentives For Deploying All-IP Networks.

There is widespread support in the record for the Commission to pursue policies to transition the industry from circuit-switched to IP networks.[2] Even AT&T and Verizon, who have resisted any regulation of their IP networks, recognize this need, stating that "[t]here is overwhelming consensus that the current systems must change to reflect the modern communications marketplace and to accommodate the steady transition to IP-based networks and

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1 *See* Comments of CenturyLink at 54, WC Dkt. No. 10-90 (April 18, 2011) ("CenturyLink Comments").

2 Comments of AT&T at 8, WC Dkt. No. 10-90 (April 18, 2011) ("AT&T Comments"); Comments of Sprint Nextel Corporation at 16-20, WC Dkt. No. 10-90 (April 18, 2011) ("Sprint Comments"); Comments of T-Mobile USA, Inc at 18, WC Dkt. No. 10-90 (April 18, 2011) ("T-Mobile Comments"); Comments of CompTel at 4 ("CompTel Comments").

the Administration's goal of ubiquitous broadband access and adoption"[3] and that "the Commission's failure to reform this antiquated [TDM-based] system is already hindering the deployment of broadband and the provision of IP-enabled services."[4] Put simply, "the current regime encourages carriers to invest in TDM technology in order to continue collecting access charges."[5] Since the Commission itself has recognized this fact,[6] it should affirmatively take the necessary steps in this proceeding to adopt policies, for both interconnection and compensation, which create the proper incentives for broadband deployment.

Although there has already been broad industry investment in IP networks, the availability of IP interconnection has not kept pace with the deployment of IP in internal networks. IP-to-IP interconnection is not widely available from ILECs; therefore, most carriers are forced to convert IP-originated traffic to TDM before delivering it for termination, despite their desire and preference to deliver it in IP. Until widespread IP interconnection is available, consumers and carriers alike will not realize the full benefits of IP technology. Not surprisingly, therefore, there is strong agreement among competitive providers that the Commission should confirm that IP-to-IP interconnection is subject to sections 251 and 252 of the Communications Act.[7] Despite protestations of the ILECs, the interconnection obligations of sections 251 and 252

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3 Comments of Verizon and Verizon Wireless at 1-2, WC Dkt. No. 10-90 (April 18, 2011) ("Verizon Comments").

4 AT&T Comments at 16.

5 Comments of Comcast Corporation at 4, WC Dkt. No. 10-90 (April 18, 2011) ("Comcast Comments").

6 *Connect America Fund; A National Broadband Plan for Our Future; High Cost Universal Service Support,* 25 FCC Rcd 6657, ¶¶ 496, 506 (2010) ("CAF NPRM").

7 *See* CompTel Comments at 4; Comments of EarthLink, Inc. at i, WC Dkt. No. 10-90 (April 18, 2011) ("EarthLink Comments"); Comments of PAETEC Holding Corp., Mpower Communications Corp., U.S. Telepacific Corp., RCN Telecom Services, LLC, and TDS Metrocom, LLC at 3, WC Dkt. No. 10-90 (April 18, 2011) ("Facilities-Based CLECs Comments"); Comments of Cox Communications, Inc. at 18-19, WC Dkt. No. 10-90 (April 18, 2011) ("Cox Comments").

are technology neutral and not targeted to apply only to legacy TDM networks that existed at the time the Telecommunications Act was passed. Moreover, as XO proposed in its initial comments, the Commission should facilitate the transition to IP interconnection for *all* carriers to exchange *all* voice telecommunications traffic, regardless of the network on which it originated or technology used to serve the parties at either end of the call.[8]

Recommendations for the Commission to allow the market to drive IP interconnection policies[9] plainly ignore the current market failure in which competitive carriers seek to negotiate and obtain IP interconnection arrangements but are simply refused by terminating LECs. Appropriate incentives do not exist today to encourage these LECs to negotiate and establish widespread IP interconnection (either directly or indirectly) with other carriers. However, XO submits that reductions in TDM rates alone will be inadequate to encourage voluntary negotiation because many LECs have shown they will hang on to TDM intercarrier compensation revenues for as long as possible.

While XO does not believe it is necessary for the Commission to mandate any particular IP interconnection configuration or to mandate direct IP interconnection between individual carriers, the agency should adopt policies that encourage all carriers to exchange all traffic in IP format. Specifically, as XO detailed in its initial comments, the Commission should determine that by an established deadline (within no more than two years) all terminating carriers are required to accept traffic in IP format without requiring any carrier delivering the traffic to convert or pay for converting it to TDM. Additionally, the Commission should establish a transition period (no more than five years) after which terminating carriers are no longer required

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8 Comments of XO Communications, LLC at 17, WC Dkt. No. 10-90 (April 18, 2011) ("XO Comments"). *See also* CompTel Comments at 9.

9 AT&T Comments at 16-37; CenturyLink Comments at 71; Verizon Comments at 16.

to provide TDM-based interconnection. At that time, any carrier delivering traffic to a terminating carrier that has eliminated its TDM POIs must arrange to transport its traffic to the terminating carrier's IP POIs and pay for any necessary conversion to IP. Even AT&T advocates the Commission establishing a date certain for eliminating requirements to provide TDM-based interconnection:[10]

> To hasten the transition from the PSTN to an all-IP end state, the Commission should establish a date certain for completion of that transition. Further, to ensure that legacy regulatory obligations do not needlessly delay the transition, the Commission should make clear that, after that date, providers will no longer be required to provide legacy, TDM-based telecommunications services or to comply with the myriad common-carrier regulations applicable to those legacy services. Following the transition, some providers may choose to continue providing TDM-based services, and to interconnect in TDM, but no provider should be *obligated* to do so."[11]

While XO does not agree with AT&T's suggestion that all common carrier regulation be removed from legacy TDM-based (retail or wholesale) services, the Commission should give great consideration to one of the largest ILECs with legacy TDM networks promoting elimination of TDM-based interconnection. XO agrees with Time Warner Cable that "[t]he sooner legacy networks are upgraded to all-IP architecture—a transition that the Commission can hasten by eliminating the perceived preference in its rules for time-division multiplexing ("TDM") traffic—the more quickly carriers can realize the cost savings associated with a streamlined ICC system and deploy their capital for more productive uses, including broadband deployment."[12]

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[10] AT&T Comments at 26.

[11] *Id.*

[12] Opening Comments and Reply Comments on Section XV of Time Warner Cable Inc. at 4, WC Dkt. No. 10-90 (April 18, 2011) ("TWC Comments").

B. Carriers Need Regulatory Certainty In Order to Make Rational Deployment Decisions

By adopting specific IP interconnection policies, the Commission will provide the necessary certainty for carriers to make rational business decisions to transition toward IP-based networks and additional broadband deployment. Again, even AT&T and Verizon recognize that uncertainty, including the risk and cost of litigation, often stymies advances in the industry. "The affected carriers are frozen in place; they are unable to forgo the legacy subsidies inherent in the existing system and move forward without any certainty as to the regime that will replace it." [13] "By articulating both a rational end state and a clear path for getting there, the Commission can hasten, rather than hinder, the transition to the broadband, all-IP network of the future."[14] Thus, the Commission should opt for quickly establishing regulatory certainty rather than drawing out the debate over the proper detailed policies for IP interconnection.

Moreover, continued delay in adopting IP interconnection policies merely extends the negative impacts on consumers of the current regime since carriers typically pass through these higher costs to their customers.[15] Ultimately, consumers will pay higher rates with the industry's continued reliance on inefficient and more costly TDM networks, even if individual carriers deploy IP all the way to customer premises. Due to the interconnected nature of

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13 Verizon Comments at 2.

14 AT&T Comments at 17. *See also* EarthLink Comments at 9 ("Without the clarity of interconnection rules including good faith negotiations and arbitration rights, the future deployment of packet based networks will continue to be hampered and consumers will be denied the benefits of new and innovative broadband services."); Cox Comments at 18-19 ("Thus, in the absence of a Commission determination, it is likely that competitive providers will be forced to fight the issue of the right regulatory framework for interconnection on a state-by-state basis during the transition if they wish to use IP-based interconnection. Given the costs and uncertainties of litigating arbitrations, there will be little incentive to undertake such an effort, and therefore a lack of certainty would impede the transition to IP interconnection.").

15 EarthLink Comments at 3.

telecommunications networks, carriers cannot fully realize the benefits of their own IP deployment unless the entire industry has at least converted to IP interconnection as a standard.

The Commission cannot ignore that there is a cost associated with converting traffic between TDM and IP formats, so the real question is simply which carrier in the traffic exchange should incur the cost of any necessary conversion. XO submits that if the Commission is really serious about achieving its goal of encouraging industry-wide conversion to IP networks, it must adopt policies that economically reward carriers that have deployed IP while disadvantaging carriers that have not done so. Simply put, instead of rewarding carriers for the technology used to serve end users, or on a carrier's service area, or on historical subsidies received, the Commission should create favorable incentives for carriers that invest in IP networks. These carriers incur costs in deploying forward-looking IP facilities and should be rewarded for doing so by reaping the economic efficiencies of their IP networks.

Therefore, XO submits that any carrier that needs to convert traffic to TDM should incur those costs directly, rather than the reverse, as has become the standard today in the absence of Commission direction regarding IP interconnection. As the Commission seeks to encourage continued deployment of IP networks, there is no reason to permit terminating carriers to impose conversion costs on the very carriers that are meeting that goal by deploying IP networks. XO does not advocate heavy-handed regulation of IP deployment; however, the industry needs certainty regarding which party will bear these costs – in lieu of a negotiated agreement between carriers – so that carriers may make rational market-based decisions regarding their individual networks. If a carrier knows it will bear those costs unless it upgrades additional facilities, then it will have the incentive to deploy IP further into its network. However, if a TDM-based carrier can continue to impose costs of conversion onto other IP-based carriers, there will be little incentive for either carrier to additionally deploy IP. And if a carrier must continue to pay for converting its traffic to TDM format, the carrier will continue to pass those costs through to its customers.

C. <u>The Commission Must Establish Default IP Interconnection and Traffic Exchange Policies Because Current Market Forces Alone Are Not Sufficient to Drive All Carrier Behavior</u>

XO's proposal does not require or suggest that the Commission take steps at this time to regulate or require any particular IP deployment or IP interconnection configuration. Therefore, there is no need for the Commission to know the end state of an all-IP telecommunications industry before establishing basic default IP interconnection and compensation policies. It is not necessary for the Commission to analyze all the nuanced details of IP interconnection in order to take the critical step of confirming that all carriers must provide IP interconnection and traffic exchange (either directly or indirectly). Furthermore, the Commission need not predict or establish a timeframe for the complete retirement of the TDM-based PSTN in this proceeding. The Commission need only establish clear default policy directives for IP interconnection and compensation and then allow carriers to make rational market-driven decisions regarding negotiation of those arrangements and deployment of IP facilities in their networks.

Moreover, establishing default compensation rules that apply in lieu of negotiated interconnection agreements would encourage quick transition to IP interconnection. As XO proposed in its initial comments, adopting an immediately lower compensation regime for IP traffic will provide a valuable incentive to encourage carriers to exchange traffic on an all-IP basis. Bill-and-keep should apply where the voice traffic exchanged in IP between two directly interconnected carriers is roughly in balance. Where there is an imbalance of traffic, however, a terminating carrier should be permitted to assess charges upon the other interconnected carrier in order to recover its additional termination costs and deter opportunities for excessive overuse of the terminating carrier's network.

Some commenters argue that the Commission should allow market forces to determine interconnection policies for the exchange of IP voice traffic similar to the development of data traffic exchanged via the Internet.[16] However, this comparison is not directly on point since the Internet developed without the existence of a legacy alternate technology and compensation regime under which regulations guaranteed revenue streams to certain providers and also permitted those providers to impose unnecessary costs on their competitors. Internet service providers (ISPs) and backbone providers had no choice but to develop market-based policies to interconnect on an IP basis for the exchange of Internet traffic in order to provide services to their customers. On the contrary, the ongoing existence and reliance on alternate TDM interconnection facilities continues to slow market-based negotiations over IP-based exchange of voice traffic connected to the PSTN. As discussed above, competitive carriers have been requesting negotiated IP interconnection arrangements with various ILECs but have been refused. Thus, while XO understands the professed preference for market forces to determine the most efficient compensation and interconnection mechanisms for all-IP networks,[17] it is clear from the current state of the industry that the necessary widespread shift to IP-based networks will not occur without some regulatory intervention.

Many of the same carriers that urge the Commission not to adopt IP interconnection policies also have advocated for a lengthy transition to lower TDM rates, some even suggesting the Commission pause after reducing intrastate rates to consider whether further

16 AT&T Comments at 16-37; CenturyLink Comments at 71; Verizon Comments at 16.

17 *See* CenturyLink Comments at 54.

rate reductions are necessary.[18] The Commission must understand that advocating a lengthy transition for reducing TDM rates is counterintuitive to the swift voluntary transition to IP interconnection and traffic exchange. Without such swift transition, these carriers will likely continue to make business decisions that maximize their intercarrier compensation revenues rather than optimally upgrade their networks.

Some commenters suggest that carriers should be allowed to wait to negotiate IP interconnection arrangements as it becomes economically beneficial for both carriers to do so.[19] However, the current policies that allow terminating carriers to dictate the interconnection arrangement gives those terminating carriers the incentive to require TDM interconnection arrangements in spite of the preferences of other carriers to deliver traffic in IP. So long as terminating carriers can force carriers delivering traffic to bear the costs of converting that traffic to TDM (in addition to collecting above-cost TDM intercarrier compensation revenues), incentive remains for many carriers not to convert their interconnection facilities to IP.

Moreover, XO agrees that "the marketplace for [IP] transit and peering services is robustly healthy;" however, it does not follow that "rules regarding [IP] interconnection and interprovider compensation for VoIP services are unnecessary" because of this competitive market.[20] So long as a terminating carrier may refuse to accept traffic in IP format, competitive IP transit services are useless. Thus, the freely-negotiated Internet model is only relevant to the extent that carriers need or must exchange traffic in the same format, namely IP. This is a given with the exchange of Internet traffic, which by its definition is formatted in IP, so the transport and delivery of traffic is for all intents and purposes, fungible. However, where a carrier

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[18] CenturyLink Comments at 59.

[19] *See* AT&T Comments at 18; Verizon Comments at 19.

[20] AT&T Comments at 24.

terminating traffic to the PSTN may simply refuse to accept traffic in IP, there is no benefit to the competitive IP transit market. This is not merely a case of one carrier declining to directly interconnect, but is a broader issue of terminating carriers altogether essentially blocking any traffic that could be delivered in IP rather than TDM format, regardless of which carrier delivered the traffic. Thus, the market-based Internet peering model cannot be expected to operate effectively with regard to the exchange of traffic terminating to the PSTN without Commission intervention to establish basic default IP interconnection requirements.

D. Deployment of IP Facilities Will Ultimately Be Driven by Market Forces During and After the Transition to Industry-Wide IP Interconnection

Certainly there will be costs involved for carriers to deploy facilities to permit IP interconnection, but the Commission should not be deterred by this argument or ignore the fact that these investments will lead to lower overall transaction costs as carriers exchange traffic at fewer IP interconnection points and dramatically reduce the costs of maintaining myriad wasteful TDM interconnection facilities. Additionally, a carrier could comply with XO's proposed default interconnection policies without deploying any additional IP facilities into its internal network or negotiating any direct interconnection arrangements. Instead, the carrier could use the services of third-party IP transit providers to indirectly interconnect with other carriers and convert its TDM traffic to and from IP. However, Commission-established pricing signals for disparate treatment of IP versus TDM interconnection may and should be used to drive business decisions to meet the National Broadband Plan's goal of deploying broadband and transitioning to all-IP networks.

In the end, under the proposal submitted by XO in its initial comments, with the proper policies and options in place, decisions to deploy additional IP networks would be driven by market forces. Individual carriers would face the decision whether to deploy IP or simply maintain TDM networks and utilize the IP transit services of third parties where upstream carriers wish to hand-off traffic in IP format. "Virtually all newly-deployed switches either use IP technology natively, or accept IP interfaces, and carriers using older switches can install media gateways that convert between TDM and IP formats"[21] if they choose to comply with the default IP interconnection policies by directly interconnecting and exchanging IP traffic with other carriers. Most importantly, however, clear and certain economic consequences established by the Commission would set proper economic signals to drive additional IP deployment, rather than the signals provided in the current system that deter deployment. With an industry standard of IP, rather than TDM, interconnection, all carriers could make rational business deployment decisions with certainty regarding the applicable regulatory policies.

In all likelihood, the PSTN will continue to exist in some areas for a long period, but with IP switching facilities replacing legacy TDM facilities. XO strongly disagrees that any "government-imposed rules regarding IP-to-IP interconnection would lead to arrangements that are economically and technically suboptimal, or even unviable."[22] Clear default IP interconnection policies that ensure that all carriers are on equal footing regarding the standard exchange of voice traffic will allow carriers to make rational decisions for additional cost-effective IP deployment. Industry standards can and will develop to address specific network issues, many of which the Commission could not conceive of or begin to address at this stage. However, the Commission should not be dissuaded by its lack of complete knowledge about the future development or pace of IP deployment. If the Commission were to wait until it had a complete understanding of all of the issues that may arise in the future of IP networks, then it would be too late for it to actually address them in a meaningful way. The Commission must

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21 EarthLink Comments at 3.

22 Verizon Comments at 16.

understand that some hold-out carriers simply will not provide IP interconnection and traffic exchange without a default mandate from the Commission, and every hold-out carrier adds another measure of uncertainty and risk for carriers deploying IP services that will need to terminate traffic to the networks of these hold-out carriers. Therefore, the Commission must be forward-thinking in this proceeding and adopt default policies that drive carriers to implement IP interconnection as quickly as possible.

II. THE COMMISSION SHOULD QUICKLY TRANSITION TO A LOW UNIFORM RATE FOR ALL TRAFFIC EXCHANGED ON A TDM BASIS AND IMMEDIATELY REDUCE RATES FOR VOIP TRAFFIC AS PART OF THAT TRANSITION

There is agreement among commenters that disparate rates in the current intercarrier compensation regime create opportunities for uneconomic arbitrage.[23] Moreover, there is no cost justification for varying rate levels for the termination of TDM traffic. Therefore, the Commission should quickly establish a unified rate structure that applies to all carriers and all types and jurisdictions of traffic terminated on a TDM basis.

XO reiterates its support for the Commission to determine the glide path for the reduction of intrastate rates to interstate rates and then for access rates to a unified rate set at the level of reciprocal compensation rates.[24] Additional cost-based reductions in TDM rates may be required if carriers choose to continue offering TDM interconnection after the transition to IP interconnection as the standard industry arrangement, preferably within five years as discussed above. At the point that carriers have options for delivery traffic in IP format, though, XO

[23] *See* TWC Comments at i; Comments of the United States Telecom Association at 4, Dkt. No. 10-90 (April 18, 2011) ("USTA Comments") ("By pricing similar functions at very different levels depending on artificial regulatory categories, it distorts competition and investment while promoting arbitrage and sometimes outright fraud."); Comcast Comments at 5; Verizon Comments at 10 ("Establishing such a low, uniform rate will ensure competitive and technological neutrality and help eliminate the fraud, arbitrage and economic distortions caused by today's disparate intercarrier compensation rates.").

[24] XO Comments at 18.

believes carriers should negotiate the terms of any TDM interconnection arrangements, including compensation rates.

XO agrees with Verizon that "a low (but positive) national default rate is the only way to prevent uneconomic arbitrage."[25] Adopting a mandatory bill-and-keep regime without considering traffic balances creates new opportunities for free riding by providers who may deliver large volumes of traffic and overuse a terminating carrier's network. While some carriers do currently voluntarily exchange traffic on a bill-and-keep basis, most interconnection and/or peering arrangements provide a backstop for assessment of termination charges to the extent traffic volumes are significantly out of balance.[26]

Furthermore, there is strong support for a short transition (three to five years) for the reduction of TDM rates to a unified rate.[27] "[T]he use of a short transition will move the industry promptly to more economically efficient transport and termination rates for all traffic, rather than prolonging the harmful, anti-competitive intercarrier compensation system over a longer period."[28] Moreover, there is absolutely no basis for the Commission to pause between reducing intrastate access rates to interstate levels and reducing overall access rates to reciprocal compensation levels. XO understands that carriers are seeking to avoid rapid reductions in revenue streams; however, the suggestion that the Commission should wait another three to five years before determining whether to fully unify TDM termination rates, a proposal it has been considering for at least a decade, is ludicrous. Opportunities for arbitrage are most prevalent where rate disparities exist; therefore, the Commission should strive to eliminate those disparities

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25 Verizon Comments at 3.

26 *Id.* at 13.

27 *See, e.g.*, Verizon Comments at 3; Comcast Comments at 6.

28 Comcast Comments at 6.

as quickly as possible. XO respectfully submits that if the Commission were to interject another rulemaking proceeding in five years time, it would likely result in another decade before intercarrier compensation rates were unified at a level below that of interstate access rates. The potential for such a result in today's competitive telecommunications environment is unacceptable. Moreover, XO agrees that rate reductions should be simultaneous for all carriers in all states with no guaranteed revenue recovery.[29] Allowing varying transitions will create, rather than reduce, rate disparities and could lead to further uneconomic arbitrage.

Finally, consistent with the discussion above, the Commission should adopt policies to encourage the transition from default TDM to IP interconnection. XO agrees that pending comprehensive reform, the Commission should set the default rate for VoIP-originated traffic equal to the reciprocal compensation rate and not impose access charges on this traffic.[30] The Commission should consider this immediate application of lower rates for VoIP traffic connected to the PSTN as *part of* the overall transition to lower cost-based TDM rates. As discussed repeatedly and consistently in comments, there is no cost-based reason for disparate termination rates based on the technology used by the originating carrier or the originating location of the call. The differences in access and reciprocal compensation rates are based almost entirely on policies that provide for subsidies through these charges. As the Commission seeks now to remove these hidden subsidies, there is no policy reason for imposing higher access charges upon this traffic and thereby increasing the cost of providing VoIP services. On the other hand, there are strong public policies for immediately adopting a lower rate for VoIP traffic in order to encourage additional deployment.

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29 Verizon Comments at 18-19.

30 Comcast Comments at 4.

The Commission should not be swayed by carrier pleas that applying lower compensation rates on VoIP would create uncertainty or precipitously reduce access revenues for LECs. First, VoIP traffic represents a small percentage of the overall traffic exchanged between carriers. Next, much of that VoIP traffic is already terminated at rates below access levels, either via agreement between carriers or because carriers deliver the traffic over local interconnection trunks based on the ESP access exemption. The Commission should not be persuaded by arguments that such disparity would lead to arbitrage or carriers gaming the compensation system. The Commission's rules to address phantom traffic and require accurate identification of traffic should prevent carriers from falsely identifying traffic in order to unjustifiably gain advantage in the interim. And there is no reason to avoid a rate disparity when it will elicit the very behavior the Commission seeks to encourage – additional deployment of VoIP services.

III. REPURPOSING THE HIGH COST FUND TO REPLACE SUBSIDIES FOR VOICE SERVICES WITH BROADBAND SUPPORT WAS ENDORSED BROADLY.

Commenters were nearly unanimous in expressing support for the Commission's proposal to reassign high cost funds to support the deployment of affordable broadband services in geographic areas where they would otherwise be unavailable to consumers.[31] However, the consensus breaks down on the question of whether subsidy support for voice services should be phased out entirely. One camp believes that we cannot afford to underwrite *both* legacy voice services and forward-looking broadband service platforms, while another camp asks the Commission to "double down" and agree to subsidize both circuit switched voice *and* broadband service deployment simultaneously.

[31] *See, e.g.* Comments of the AdHoc Telecommunications Users Committee at 12-14, WC Dkt. No. 10-90 (April 18, 2011) ("AdHoc Comments"); AT&T Comments at 109-111; Comments of Cbeyond, Inc., Integra Telecom, Inc., and TW Telecom Inc. at 18, WC Dkt. No. 10-90 (April 18, 2011) ("Cbeyond Comments"); Comcast Comments at 15-16; Cox Comments at 2-3; TWC Comments at 24-25; Verizon Comments at 56-57, 64-65.

XO strongly supports the use of high cost funds to ensure that affordable broadband services are made available everywhere that it can be done in an economically rational fashion. It is in the national interest to enable all Americans to communicate with one another via broadband services, and to avoid the creation of a nation of broadband "haves" and "have nots." Subsidy support for the deployment of broadband facilities to remote or economically disadvantaged areas should be considered a necessary "investment" in the country's economic development.

However, the funding available for universal service programs is severely limited. The system already is taxed to the limit. Hence, the Commission must resist the suggestion of recipients of USF funding that they be able to obtain funding *both* for the provision of legacy, circuit-switched voice services *and* the offering of broadband services.[32] In a world of limited resources, difficult choices must be made – and, in this case, investment in the broadband network of the future clearly is a better option than support of antiquated circuit-switched networks of severely limited capability. Circuit-switched networks are sunk costs, and LECs will continue to provide legacy voice services over those facilities for so long as there is any significant consumer demand for them. In the current environment, any available high cost funding is better used to underwrite the deployment of broadband services where they otherwise could not be offered at affordable prices. Indeed, continuing subsidy support of voice services would be counter-productive as it would give LECs a reason to defer investment in broadband facilities. Shifting all high cost subsidy support for legacy voice services to broadband services would energize LECs to invest in broadband networks and roll-out broadband services in otherwise marginal areas.

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[32] *E.g.* AT&T Comments at 99.

Thus, high cost support for circuit switched voice services should be discontinued. Specifically, it should be phased out entirely on the same pace that subsidy support for broadband services is phased in. Any other choice would inevitably result in limited high cost funds being drained from support for broadband services, and a harmful delay in the deployment of those services.

IV. BROADBAND CAN BE SUPPORTED ONLY IF THE HIGH COST FUND IS BROUGHT UNDER CONTROL.

The High Cost Fund ("HCF") has run dry. The USF contribution factor already exceeds an astonishing 14% and is spiraling ever higher. As currently configured, the HCF is broken and unsustainable. Time Warner Cable accurately described the explosive growth of high cost support as "push[ing] the current regime to a point of crisis."[33] As commendable as it may be, subsidy support cannot be extended to broadband services unless and until reforms are made to bring universal service costs under control. As the Commission previously has observed, "ensur[ing] that the size of the fund remains reasonable" is "an essential first step toward repurposing the universal service fund to support broadband," since further expansion of the fund will cause consumers to discontinue use of the very networks that USF was established to support.[34] Migration of high cost support to the Connect America Fund ("CAF") presents the perfect opportunity to implement reforms that are required to make universal service funding more efficient and effective.

A. Most Commenters Agree that High Cost Funding Must Be Capped at Current Levels.

The Commission must take action to ensure that the creation of the CAF and introduction of broadband support does not further inflate an already bloated high cost fund.

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33 TWC Comments at 24.

34 *CAF NPRM*, ¶¶ 51-52. *See, also,* Verizon Comments at 55.

Initial comments showed broad support for the notion that CAF funding should be capped at current high cost funding levels.[35] Specifically, many commenters endorsed the proposal in the *NPRM* to "set an overall budget for the CAF such that the sum of the CAF and any existing high-cost programs (however modified in the future) in a given year are equal to the size of the current high-cost program in 2010," adjusted for inflation.[36] As Verizon pointed out, the Commission has "many times extolled the benefits of putting high cost funding on a budget but thus far has failed to draw the line on total spending."[37]

As universal service funding migrates to the CAF, the time for discipline is now. Indeed, the Commission has an affirmative legal obligation to halt the explosion in demand for high cost support. The U.S. Court of Appeals for the D.C. Circuit recently espoused that the Commission must guard against "excessive subsidization" and "consider not only the possibility of pricing some customers out of the market altogether, but the need to limit the burden on customers who continue to maintain telephone networks."[38] Similarly, the U.S. Court of Appeals for the Fifth Circuit has warned that "excessive funding itself may violate" the Communications Act by "causing rates unnecessarily to rise, thereby pricing some consumers out of the market."[39]

Indeed, the Commission must dispel any notion that high cost support is not never-ending. While capping high cost funding is a starting point, the Commission should make clear that it expects such funding to decrease over time as broadband is successfully deployed to

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35 *See, e.g.*, Cbeyond at 17; Comcast Comments at 11; Verizon Comments at 64.

36 *CAF NPRM,* ¶ 414.

37 Verizon Comments at 55.

38 *Rural Cellular Association v. FCC,* 588 F.3d 1095, 1002 (D.C. Cir. 2009).

39 *Alenco Communications v. FCC,* 201 F.3d 608, 620 (5th Cir. 2000); *see also, Qwest Communications v. FCC,* 398 F.3d 1222, 1234 (10th Cir. 2005); *see generally,* Verizon Comments at 56-57.

unserved areas and improving technology drives pricing ever lower.[40] The pleas of companies that have become addicted to high cost support indefinitely with ever-increasing subsidy payments are not surprising.[41] At least some rural LECs have made a practice out of going on acquisition binges and shoring up stock prices with huge HCF transfer payments used to pay extraordinarily high dividends.[42] These practices must end.

ITTA's claim that the *Notice* provides no basis to conclude that current high cost funding is excessive ignores the plain fact that the contribution factor already is unsustainably high at over 14 percent.[43] As much as some rural LECs would like to pretend otherwise, this clearly is a case where the Commission cannot get "blood from a stone".

B. <u>CAF Support Should Be Limited to a Single Provider Per Geographic Area.</u>

XO has a long history of unwavering support for regulation that facilitates competitive market entry. Allowing multiple carriers to compete against one another for subscribers is the best pathway to achieving efficient prices, service quality improvement, and innovation. However, that principle does not apply when carriers primarily compete against one another for the right to collect a government subsidy. The "identical support" rule has led relatively low cost wireless CETCs to rush into markets simply to claim high cost subsidy payments calculated on the basis of much higher service costs incurred by wireline rural LECs. Since USF payments have never been made truly "portable," high cost payments to wireline LECs are not reduced concomitantly to the subsidy payments made to wireless CETCs that

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40 Verizon Comments at 55.

41 *See,* Comments of the Independent Telephone & Telecommunications Alliance at 14, WC Dkt. No. 10-90 (April 18, 2011) ("ITTA Comments").

42 *See generally,* Comments of Windstream Communications at 50, WC Dkt. No. 10-90 (April 18, 2011) ("Windstream Comments").

43 ITTA Comments at 14.

displace them.[44] Accordingly, as CETC support has increased by more than 1,000 percent since 2003, it has caused the aggregate demand for high cost funding to grow by more than $1 billion annually.[45] Indeed, as the current system has spun out-of-control, it has led to absurdities such as providing subsidy support for multiple wireless handsets in a single household.[46]

Accordingly, XO agrees with the many commenters that warned that "[e]xcessive, redundant support cannot continue," especially if the Commission wants to begin providing subsidy support for broadband offerings.[47] As ITTA stated, "[s]upport for multiple providers is a waste of limited public resources and should not be used to build duplicate networks."[48] The Commission already has succeeded in eliminating CETC funding to Verizon Wireless and Sprint, and it now is time to complete the job by quickly eliminating high cost funding paid to other CETCs. As Verizon pointed out, last year the Commission adopted detailed and practical procedures for phasing out the high cost subsidy support paid to Verizon Wireless and Sprint,[49] and for redistributing the freed up funds for other priorities.[50] These procedures can easily be extended and applied to the phase-out of payments to other CETCs as high cost funding is transitioned away from voice services to broadband.[51] Thus, all remaining CETC high cost

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44 *See generally*, AT&T Comments at 59-60, 108-109.

45 *See,* 2010 Universal Service Monitoring Report, Staff of the Federal-State Joint Board on Universal Service, Table 3.2 (Dec. 31, 2010).

46 Verizon Comments at 49.

47 Windstream Comments at 28-30; Verizon Comments at 47-50.

48 ITTA Comments at 30.

49 Verizon Comments at 48; *see, Request for Review of Decision of Universal Service Administrator by Corr Wireless Communications*, 25 FCC Rcd 12854 (2010).

50 *See, High-Cost Universal Service Support; Federal-State Joint Board on Universal Service,* 25 FCC Rcd 18146, ¶ 5 (2010).

51 Verizon Comments at 49-50.

funding should be phased out *prior* to the migration from the HCF to CAF and the extension of subsidy support to broadband services.

C. <u>Subsidies Should Be Awarded on the Basis of Competitive Bidding.</u>

Most government contracting is accomplished through competitive bidding and CAF support should not be an exception. Only a competitive bidding process – specifically, a "reverse auction" system – can ensure that scarce high cost support funding is allocated in an economically efficient fashion. As Time Warner Cable explained, "[r]everse auctions harness market forces to determine efficient levels of support in a competitively and technologically neutral manner."[52] Simply put, a reverse auction system would appropriately identify and reward the most efficient service provider in each undeserved geographic area.[53] When allocating scarce public funding, there is no room for underwriting the operations of anything other than the single most efficient service provider in each territory. As Verizon observed, competitive bidding "breaks high cost funding from the unsustainable cycle of providing ever-increasing support to make rural carriers whole as their per-line costs increase – a trend that is irreversible as these carriers lose lines."[54]

Importantly, the Commission must take care that its bidding rules do not "stack the deck" in favor of entrenched, but inefficient carriers. The eligibility requirements must be competitively and technologically neutral. Wireline should be given no preference over wireless service; fixed and mobile technologies should be treated equally; and satellite-based services should be accepted in areas where the cost of terrestrial services would be unreasonably high. Similarly, geographic territories for bidding purposes should be established on the basis of

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52 TWC Comments at 26.

53 Comcast Comments at 16.

54 Verizon Comments at 59.

competitively neutral census blocks, and not aligned with the network topology of incumbent carriers (affording them an unfair advantage). The goal should be to establish procedures which attract the maximum potential number of competitive bidders, not to effectively "steer" the subsidy award to incumbent providers[55] or any particular technology.

AT&T's suggestion that the Commission adopt an application process rather than an auction system must be rejected.[56] The question is not who would make the subjective "best" subsidized service provider in each area, but rather which carrier would provide "adequate" service at the *lowest price*. A two-stage auction process where carriers are first certified as eligible bidders based on meeting threshold service criteria and then compete for funding based on competitive bidding accomplishes this goal objectively. An application process, on the contrary, creates a "beauty contest" filled with subjective evaluations and that is subject to myriad political influences. Hence, an application process must be seen (and rejected) for what it is – an attempt to create a system where carriers can receive high cost funding as a "preferred" carrier rather than the "most efficient" provider of adequate broadband services.

Similarly, the Commission must refuse suggestions that incumbent providers be given a "right of first refusal" for high cost support in each underserved geographic area.[57] Such a requirement would fundamentally taint the competitive bidding process by eliminating the incentive for new entrants to submit bids. No rationale competitive carrier will make the sizable investment required to plan a product and construct a serious bid if they know that the incumbent provider can sit on the sidelines and simply agree to match their proposal. On the other hand, under a "right of first refusal" framework, incumbent providers will not bid aggressively, since

55 *See, id.*, at 17-18; Cox Comments at 7-8.

56 *See,* AT&T Comments at 99.

57 *See,* ITTA Comments at 25; AT&T Comments at 98.

they know that they have the option of simply stepping in at the end of the process and matching the bids of others. As a result of the removal of the incumbents as serious bidders, winning bids, on the whole, will be higher and ratepayers supporting the CAF program would be required to contribute more than necessary. "Competitive bidding" and "rights of first refusal" simply are incompatible notions.

D. USF Contribution Side Reform Must be Made in Tandem with Distribution Reform.

While reform of the distribution of USF funds is urgently needed, XO emphasized in its initial Comments that USF reform cannot be undertaken on a piecemeal basis.[58] The contribution side of USF is at least as equally broken as the contribution side. The current contribution system cannot generate the revenue required to support broadband services, and also confers artificial competitive advantages depending solely on arbitrary service classifications. As importantly, the contribution and distribution sides of high cost funding are inextricably linked. As Cbeyond explained, the "legacy contribution base…cannot support the construction and operation of new and expanding broadband networks" and, accordingly, the FCC must "broaden the universal service contribution base to include all broadband Internet access service revenues."[59] Thus, as Earthlink explained, reform of the USF distribution system would be "incomplete without comprehensive and contemporaneous contribution reforms."[60]

The Commission should issue a Further Notice of Proposed Rulemaking in this docket immediately that proposes to reform the contribution side of the USF system. Final action to reform the contribution and distribution sides of the USF should be taken simultaneously.

58 XO Comments at 35.

59 Cbeyond Comments at 19-20.

60 Earthlink Comments at 19-23.

V. **CONCLUSION**

For the forgoing reasons, XO respectfully requests that the Commission reform its rules pertaining to intercarrier compensation charges and universal service high cost support in the manner recommended herein and in XO's initial comments.

Sincerely,

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May 23, 2011